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IMPACT OF ARTIFICIAL REEFS: CASE OF NASIDMAN ISLAND

By Roberto P. Alabado III

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Abstract:

The Philippine population mainly lies along coastal areas considering that 70% of its municipalities are located along the coast. The marine resources provide livelihood and a major source of cheap protein for the people living along the coast. However, population and economic pressures have resulted in the degradation of productive coastal ecosystems like the coral reefs and mangrove forests. Proper coastal zone planning and management is therefore needed to protect and sustain both land and marine resources. The past decades have seen the development of various marine resource enhancement strategies such as artificial reef programs and the zoning of marine protected areas.

The major aim of the study is to undertake an impact evaluation of artificial reef (AR) project in Nasidman Island, Ajuy, Iloilo. Specifically, the project aims to (1) determine the impact of artificial reef project on the fishing community through a household survey of fisher households of *Barangay* Nasidman; (2) determine the other impacts of the artificial reef program on the LGU, fisherfolk association, and other communities; (3) identify lessons that can be learned on planning and managing coastal enhancement projects; and (4) provide supporting data for the joint memorandum on lifting the moratorium on the deployment of ARs and the local management of such resource enhancing projects.

An artificial reef program in Nasidman Island of the municipality of Ajuy in Iloilo province was selected for the study. A household survey was conducted to gather data on direct impact of the AR program. Key informant interviews and unstructured discussions with the community leaders and groups were likewise done.

Major findings of the study are the following:

- (1) The ARs of Nasidman has increased the catch per unit effort of the local fisherfolk. This however, may not be due to the increased surface for algae formation but may be due to the ARs role in protecting the natural coral reefs of the island from trawls and net fishing.
- (2) Artificial reefs especially those constructed from concrete and steel bars serve as effective barriers against the intrusions of commercial trawling and other fishnet users.
- (3) ARs result in the development of territorial users' rights where only locals and members of fisherfolk organizations are provided priority access to designated marine protected areas. On the other hand, the AR program raises the awareness of other *barangays* on the benefits of marine resource enhancement and protection as they are now clamoring for their own AR program and marine protected areas in their vicinities.
- (4) The moratorium on the deployment of ARs was ignored mainly due to the LGUs desire to provide livelihood to its constituents.